ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
FEBRUARY 1, 2006 – 9:00 A.M.
MULTI-MODAL CONFERENCE ROOM

Present:	L. Tibbits	J. Friend	J. Polasek
	B. J. O'Brien	J. W. Reincke	M. VanPortFleet
	J. D. Culp	M. Chaput	C. Roberts
	T. Fudaly	C. Bleech	E. Burns
Guests:	B. Krom	M. Bott	

OLD BUSINESS

1. **Approval of the Minutes of the December 1, 2005, Meeting – L. Tibbits**

   The minutes of the December 1, 2005, meeting were approved.

2. **Annual Revision of Traffic and Safety Notes (See October 6, 2005, Meeting Minutes, New Business, Item 1) – M. Bott**

   The revisions to the Traffic and Safety Notes, which were requested at the October 6, 2005, EOC meeting, have been made. The following Traffic and Safety Notes are new:

   - 210A Application of the MMUTCD Traffic Signal Warrants
   - 508A Traffic Control Order and Stop Determination Processes
   - 509A Temporary Traffic Control Orders
   - 510A Truck Route Classifications Considerations
   - 701A Signing for Winter Parking Restrictions
   - 705A Parking Facility Dimensions

   ACTION: Approve the revised Traffic and Safety Notes, with minor revisions to Notes 401B, 508A, and 705A.

NEW BUSINESS

1. **Pavement Selections – B. Krom**

   A. **I-75 Reconstruction: CS 49025, JN 50746**

   The reconstruction alternates considered were an HMA pavement (Alternate 1 – equivalent uniform annual cost [EUAC] $24,921/directional mile) and a jointed plain concrete pavement (Alternate 2 – EUAC $38,349/directional mile). A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

   1.5"..... HMA, 5E3, Top Course (mainline & inside shoulder)
   2"..... HMA, 4E3, Leveling Course (mainline & inside shoulder)
   3"..... HMA, 3E3, Base Course (mainline & inside shoulder)
   4.5"..... HMA, 13A (outside shoulder)

12”.....Aggregate Base (mainline & inside shoulder)
14”.....Aggregate Base (outside shoulder)
Existing concrete, base and subbase
Edge of Pavement Underdrain System
17.5”.....Total Section Thickness

Present Value Initial Construction Costs ..... $378,211/directional mile
Present Value Initial User Costs ..... $15,275/directional mile
Present Value Maintenance Costs..... $88,716/directional mile
Equivalent Uniform Annual Cost ..... $24,921/directional mile

B. **I-75 Reconstruction: CS 73171, JN 75246**

The rehabilitation alternates consider were an HMA pavement (Alternate 1 – EUAC $119,442/directional mile) and a jointed plain concrete pavement (Alternate 2 – EUAC $102,591/directional mile). A life cycle cost analysis was performed and Alternate 2 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

11.5”.....Jointed Plain Concrete Pavement w/14’ joint spacing (mainline)
8.5”.....Jointed Plain Concrete Pavement w/14’ joint spacing (shoulders)
6”..... Open Graded Drainage Course (mainline)
9”.....Open Graded Drainage Course (shoulders)
Geotextile Separator
10”..... Sand Subbase
6” dia.....Open-Graded Underdrain System
27.5”.....Total Thickness

Present Value Initial Construction Costs ..... $1,216,260/directional mile
Present Value Initial User Costs ..... $485,812/directional mile
Present Value Maintenance Costs..... $111,003/directional mile
Equivalent Uniform Annual Cost ..... $102,591/directional mile

C. **I-75 BL/US-24 BR Reconstruction: CS 63051, 63151, and 63201, JN 55659**

The reconstruction alternates considered were an HMA pavement (Alternate 1 – EUAC $83,392/directional mile) and a jointed plain concrete pavement (Alternate 2 – EUAC $80,513/directional mile). A life cycle cost analysis was performed and Alternate 2 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

9.5”.....Jointed Plain Concrete Pavement w/14’ jt spacing
Existing Base
Existing Subbase
6”..... Subbase Underdrain System
9.5”.....Total Thickness

Present Value Initial Construction Costs ..... $972,794/directional mile
Present Value Initial User Costs ..... $302,649/directional mile
Present Value Maintenance Costs..... $147,455/directional mile
Equivalent Uniform Annual Cost ..... $80,513/directional mile

2. **Removal of 1" Dowel Bars From Standard Plan R-40-F – C. Bleech**

Current standards require the use of 1" dowel bars for pavements less than 8". There have been constructability issues noted with the use of 1" dowel bars, including placement of the bars by dowel bar inserters. The Pavement Committee is proposing to change Standard Plan R-40-Series to require a minimum 1¼" diameter dowel bar for pavements less than 8".

ACTION: The Pavement Committee will discuss this with industry to address any concerns they may have. It will be resubmitted to EOC once industry input is received.

3. **Establish a Minimum Thickness of 7" for Unbonded Concrete Overlays – C. Bleech**

Current standards do not specify a minimum thickness for unbonded concrete overlays. To date, traditional unbonded concrete overlays have been constructed from 6.3" to 8" thick. A survey of other state DOTs indicates that a minimum thickness of 7" is standard.

ACTION: The Pavement Committee will discuss this with industry to address any concerns they may have. It will be resubmitted to EOC once industry input is received.

(Signed Copy on File at C&T)
Brenda J. O'Brien, Secretary
Engineering Operations Committee

BJO:kar

cc:

G. J. Jeff	S. Mortel	J. Steele (FHWA)
K. Steudle	D. Jackson	R. Brenke (ACEC)
L. Hank	W. Tansil	G. Bukoski (MITA)
EOC Members	D. Wresinski	R. J. Risser, Jr. (MCPA)
Region Engineers	C. Libiran	D. Hollingsworth (MCA)
TSC Managers	R. J. Lippert, Jr.	J. Becsey (APAM)
Assoc. Region Engineers	T. L. Nelson	M. Newman (MAA)
T. Kratofil	T. Phillips	C. Mills (MPA)
M. DeLong	K. Peters	J. Murner (MRPA)
B. Kohrman	J. Ingle	G. Naeyaert (ATSSA)
J. Shinn	C&T Staff	